Past weather sheds new light on climate

13 September 2011 - A huge catalogue of old weather data, from the ships' logs of historic voyages to World War I Royal Navy records, is being used for an international project to recreate the world's past climate.

ACRE (Atmospheric Circulation Reconstructions over Earth) aims to recover sparse historical weather observations which are then processed to create reconstructions or 'reanalyses' of the world's climate over the last 200 years.

The reanalysis will show the state of the atmosphere at six hourly intervals to give unprecedented detail about past weather. The end product will have a huge number of potential uses - including understanding future climate.

Rob Allan , leading ACRE for the Met Office, said: "This project will help to shed much more light on the patterns, variability and changes in our past climate. This will not only help give us more confidence in our understanding of the past, but also allow us to better assess our predictions for the future."

Gil Compo, leading reanalyses at the University of Colorado and National Oceanic and Atmospheric Administration in the US, said: "This requires an international effort to collate historical observations from sources as diverse as 19th century sea captains, turn of the century explorers and medical doctors, all pieced together using some of the world's most powerful supercomputers at the US Department of Energy. The result is the most extensive collection of weather information ever assembled for scientific study."

Members of the public are playing a key role by helping to input the huge amounts of hand written weather data which the project needs.

Philip Brohan, part of the Met Office ACRE team, said: "This is a great example of citizen science and there's still a huge amount of work to do, so we're hoping more people will get involved."

International climate, environmental and social scientists will be joining together this month to discuss the latest developments in this ambitious project as part of ACRE's annual workshop.

Due to be held at the Royal Netherlands Meteorological Institute (KNMI) in The Netherlands and running from 21 to 23 September, it will feature a range of talks around the subject of using historic weather data to find out more about past and future climate.

More information can be found here: http://www.euro4m.eu/4th_ACRE_Meeting_september_2011.html

Contact information

Met Office Press Office: **+44 (0)1392 886655**

E-mail: Press Office

Met Office Customer Centre: **01392 885680**

If you're outside the UK: **+44 1392 885680**

Last updated: 13 September 2011